

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A method of manufacturing a semiconductor device comprising a wiring comprising at least a laminate of a first conductive film with a property as a barrier and a second conductive film containing copper as its main component, comprising the steps of:

forming the first conductive film ~~[[on]]~~ over an insulating surface;

making the first conductive film into a desired shape with etching;

forming the second conductive film on the first conductive film through an opening portion of a mask; and

reducing a width of the second conductive film with dry etching.

2. (Currently Amended) A method of manufacturing a semiconductor device comprising a first wiring comprising at least a laminate of a first conductive film with a property as a barrier and a second conductive film containing copper as its main component, comprising the steps of:

forming a semiconductor layer ~~[[on]]~~ over an insulating surface;

forming a first insulating film over the semiconductor layer;

forming the first conductive film ~~[[on]]~~ over the first insulating film;

making the first conductive film into a desired shape with etching;

forming the second conductive film on the first conductive film through an opening portion of a mask;

reducing a width of the second conductive film with dry etching;

doping an impurity element into the semiconductor layer with the first wiring as a mask to form an impurity region;

forming a second insulating film over the first wiring;  
forming a contact hole to reach the impurity region in the second insulating film;  
and  
forming a second wiring electrically connected to the impurity region over  
the second insulating film.

3. (Currently Amended) A method of manufacturing a semiconductor device according to claim 2 further comprising the steps of:

forming a third conductive film with a property as a barrier over the second insulating film;  
making the third conductive film into a desired shape with etching;  
forming a fourth conductive film containing copper as its main component on the third conductive film through an opening portion of a mask; and  
reducing a width of the fourth conductive film with dry etching to form the second wiring.

4. (Currently Amended) A method of manufacturing a semiconductor device comprising a wiring comprising at least a laminate of a first conductive film with a property as a barrier and a second conductive film containing copper as its main component, comprising the steps of:

forming a semiconductor layer comprising an impurity region;  
forming a gate electrode over the semiconductor layer through a first insulating film;  
forming a second insulating film over the gate electrode;  
forming a contact hole to reach the impurity region in the second insulating film;  
patterning the first conductive film formed over the second insulating film;  
forming the second conductive film on the first conductive film through an opening portion of a mask; and

reducing a width of the second conductive film with dry etching to form the wiring electrically connected to the impurity region on the second insulating film.

5. (Original) A method according to claim 1, wherein the first conductive film comprises TiN as its main component.

6. (Original) A method according to claim 2, wherein the first conductive film comprises TiN as its main component.

7. (Original) A method according to claim 4, wherein the first conductive film comprises TiN as its main component.

8. (Original) A method according to claim 1, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon.

9. (Original) A method according to claim 2, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon.

10. (Original) A method according to claim 4, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon.

11. (Original) A method according to claim 1, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon formed on the film containing Ti as its main component.

12. (Original) A method according to claim 2, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon formed on the film containing Ti as its main component.

13. (Original) A method according to claim 4, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon formed on the film containing Ti as its main component.

14. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein an insulating film with a property as a barrier comprising at least one of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the second conductive film.

15. (Original) A method of manufacturing a semiconductor device according to claim 2, wherein an insulating film with a property as a barrier comprising at least one of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the second conductive film.

16. (Original) A method of manufacturing a semiconductor device according to claim 4, wherein an insulating film with a property as a barrier comprising at least one of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the second conductive film.

17. (Original) A method of manufacturing a semiconductor device according to claim 3, wherein an insulating film with a property as a barrier comprising at least one of

silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the fourth conductive film.

18. (New) A method of manufacturing a semiconductor device comprising a first wiring comprising at least a laminate of a first conductive film with a property as a barrier and a second conductive film containing copper as its main component, comprising the steps of:

- forming a semiconductor layer over an insulating surface;
- forming a first insulating film over the semiconductor layer;
- forming the first conductive film over the first insulating film;
- making the first conductive film into a desired shape with etching;
- forming the second conductive film on the first conductive film through an opening portion of a mask;
- reducing a width of the second conductive film with dry etching;
- doping an impurity element into the semiconductor layer with the first wiring as a mask to form an impurity region;
- forming a second insulating film over the first wiring;
- forming a third insulating film over the second insulating film;
- forming a contact hole to reach the impurity region in the second insulating film and the third insulating film; and
- forming a second wiring electrically connected to the impurity region over the third insulating film.

19. (New) A method of manufacturing a semiconductor device according to claim 18 further comprising the steps of:

- forming a third conductive film with a property as a barrier over the third insulating film;
- making the third conductive film into a desired shape with etching;

forming a fourth conductive film containing copper as its main component on the third conductive film through an opening portion of a mask; and

reducing a width of the fourth conductive film with dry etching to form the second wiring.

20. (New) A method of manufacturing a semiconductor device comprising a first wiring comprising at least a laminate of a first conductive film with a property as a barrier and a second conductive film containing copper as its main component, comprising the steps of:

forming a semiconductor layer over an insulating surface;

forming a first insulating film over the semiconductor layer;

forming the first conductive film over the first insulating film;

making the first conductive film into a desired shape with etching;

forming the second conductive film on the first conductive film through an opening portion of a mask;

reducing a width of the second conductive film with dry etching;

doping an impurity element into the semiconductor layer with the first wiring as a mask to form an impurity region;

forming a second insulating film over the first wiring;

forming a third insulating film over the second insulating film;

forming a fourth insulating film over the third insulating film;

forming a contact hole to reach the impurity region in the second insulating film and the third insulating film and the fourth insulating film; and

forming a second wiring electrically connected to the impurity region over the fourth insulating film.

21. (New) A method of manufacturing a semiconductor device according to claim 20 further comprising the steps of:

forming a third conductive film with a property as a barrier over the fourth insulating film;

making the third conductive film into a desired shape with etching;

forming a fourth conductive film containing copper as its main component on the third conductive film through an opening portion of a mask; and

reducing a width of the fourth conductive film with dry etching to form the second wiring.

22. (New) A method of manufacturing a semiconductor device comprising a first wiring comprising at least a laminate of a first conductive film with a property as a barrier and a second conductive film containing copper as its main component, comprising the steps of:

forming a semiconductor layer over an insulating surface;

forming a first insulating film over the semiconductor layer;

forming the first conductive film over the first insulating film;

making the first conductive film into a desired shape with etching;

forming the second conductive film on the first conductive film through an opening portion of a mask;

reducing a width of the second conductive film with dry etching;

doping an impurity element into the semiconductor layer with the first wiring as a mask to form an impurity region;

forming a second insulating film over the first wiring;

forming a contact hole to reach the impurity region in the second insulating film;  
and

forming a second wiring electrically connected to the impurity region over the second insulating film,

wherein the first conductive film has a tapered shape.

23. (New) A method of manufacturing a semiconductor device according to claim 22 further comprising the steps of:

- forming a third conductive film with a property as a barrier over the second insulating film;

- making the third conductive film into a desired shape with etching;

- forming a fourth conductive film containing copper as its main component on the third conductive film through an opening portion of a mask; and

- reducing a width of the fourth conductive film with dry etching to form the second wiring.

24. (New) A method of manufacturing a semiconductor device comprising a first wiring comprising at least a laminate of a first conductive film with a property as a barrier and a second conductive film containing copper as its main component, comprising the steps of:

- forming a semiconductor layer over an insulating surface;

- forming a first insulating film over the semiconductor layer;

- forming the first conductive film over the first insulating film;

- making the first conductive film into a desired shape with etching;

- forming the second conductive film on the first conductive film through an opening portion of a mask;

- reducing a width of the second conductive film with dry etching;

- doping an impurity element into the semiconductor layer with the first wiring as a mask to form an impurity region;

- forming a second insulating film over the first wiring;

- forming a contact hole to reach the impurity region in the second insulating film;

and

- forming a second wiring electrically connected to the impurity region over the second insulating film,



wherein the second conductive film has a tapered shape.

25. (New) A method of manufacturing a semiconductor device according to claim 24 further comprising the steps of:

- forming a third conductive film with a property as a barrier over the second insulating film;

- making the third conductive film into a desired shape with etching;

- forming a fourth conductive film containing copper as its main component on the third conductive film through an opening portion of a mask; and

- reducing a width of the fourth conductive film with dry etching to form the second wiring.

26. (New) A method of manufacturing a semiconductor device comprising a first wiring comprising at least a laminate of a first conductive film with a property as a barrier and a second conductive film containing copper as its main component, comprising the steps of:

- forming a semiconductor layer over an insulating surface;

- forming a first insulating film over the semiconductor layer;

- forming the first conductive film over the first insulating film;

- making the first conductive film into a desired shape with etching;

- forming the second conductive film on the first conductive film through an opening portion of a mask;

- reducing a width of the second conductive film with dry etching;

- doping an impurity element into the semiconductor layer with the first wiring as a mask to form an impurity region;

- forming a second insulating film over the first wiring;

- forming a contact hole to reach the impurity region in the second insulating film;

and

forming a second wiring electrically connected to the impurity region over the second insulating film,

wherein the first conductive film has a tapered shape, and  
wherein the second conductive film has a tapered shape.

27. (New) A method of manufacturing a semiconductor device according to claim 26 further comprising the steps of:

forming a third conductive film with a property as a barrier over the second insulating film;

making the third conductive film into a desired shape with etching;

forming a fourth conductive film containing copper as its main component on the third conductive film through an opening portion of a mask; and

reducing a width of the fourth conductive film with dry etching to form the second wiring.

28. (New) A method according to claim 18, wherein the first conductive film comprises TiN as its main component.

29. (New) A method according to claim 20, wherein the first conductive film comprises TiN as its main component.

30. (New) A method according to claim 22, wherein the first conductive film comprises TiN as its main component.

31. (New) A method according to claim 24, wherein the first conductive film comprises TiN as its main component.

32. (New) A method according to claim 26, wherein the first conductive film

comprises TiN as its main component.

33. (New) A method according to claim 18, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon.

34. (New) A method according to claim 20, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon.

35. (New) A method according to claim 22, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon.

36. (New) A method according to claim 24, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon.

37. (New) A method according to claim 26, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon.

38. (New) A method according to claim 18, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon formed on the film containing Ti as its main component.

39. (New) A method according to claim 20, wherein the first conductive film

comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon formed on the film containing Ti as its main component.

40. (New) A method according to claim 22, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon formed on the film containing Ti as its main component.

41. (New) A method according to claim 24, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon formed on the film containing Ti as its main component.

42. (New) A method according to claim 26, wherein the first conductive film comprises a laminate of a film containing Ti as its main component and a film comprising one of TiN, TaN, WN, TiC, TaC, and silicon formed on the film containing Ti as its main component.

43. (New) A method of manufacturing a semiconductor device according to claim 18, wherein an insulating film with a property as a barrier comprising at least one of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the second conductive film.

44. (New) A method of manufacturing a semiconductor device according to claim 19, wherein an insulating film with a property as a barrier comprising at least one of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the fourth conductive film.

45. (New) A method of manufacturing a semiconductor device according to claim 22, wherein an insulating film with a property as a barrier comprising at least one of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the second conductive film.

46. (New) A method of manufacturing a semiconductor device according to claim 23, wherein an insulating film with a property as a barrier comprising at least one of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the fourth conductive film.

47. (New) A method of manufacturing a semiconductor device according to claim 24, wherein an insulating film with a property as a barrier comprising at least one of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the second conductive film.

48. (New) A method of manufacturing a semiconductor device according to claim 25, wherein an insulating film with a property as a barrier comprising at least one of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the fourth conductive film.

49. (New) A method of manufacturing a semiconductor device according to claim 26, wherein an insulating film with a property as a barrier comprising at least one of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the second conductive film.

50. (New) A method of manufacturing a semiconductor device according to claim 27, wherein an insulating film with a property as a barrier comprising at least one

of silicon nitride, silicon oxynitride, aluminum nitride, and aluminum oxynitride is formed with sputtering to cover the fourth conductive film.